SECTION SEVEN

Selecting, Designing, and Operating the Collection Site

Proper site selection, design, and operation are crucial in promoting maximum participation in the HHW collection and subsequent collections. An easily accessible, efficiently run site will help ensure positive experiences on collection day, which can result in favorable publicity for the next event.

Site Selection

The site chosen for the collection should be well known, centrally located, and easily accessible. It also should be well removed from residences, parks where children play, and environmentally sensitive areas, such as open bodies of water, wells, faults, and wetlands. Local zoning regulations might specify required setbacks and buffer zones and might identify acceptable or restricted areas. Using sites with an impermeable surface (e.g., pavement or concrete) helps to minimize environmental risks. Onsite utilities should include running water, fire hydrants, and electric hookups (or generators) in case lights are needed to pack and label the HHW after dark.

Collection sites typically are located on publicly owned land, such as stadium parking lots, solid waste landfills or transfer stations, schools, fire stations, and public works yards. A wastewater treatment plant is a good collection site because it also offers the opportunity to educate the public about water pollution problems caused by improperly managed HHW.

Simple site plan for a one-day drop-off HHW collection program.

Site Design and Operation

A well-designed and well-operated HHW collection site allows participants to move through the collection area quickly and efficiently. It includes areas for people who require special attention, and adequate space for waiting lines. It also has staff on hand to direct traffic, offer informational materials, and answer questions.

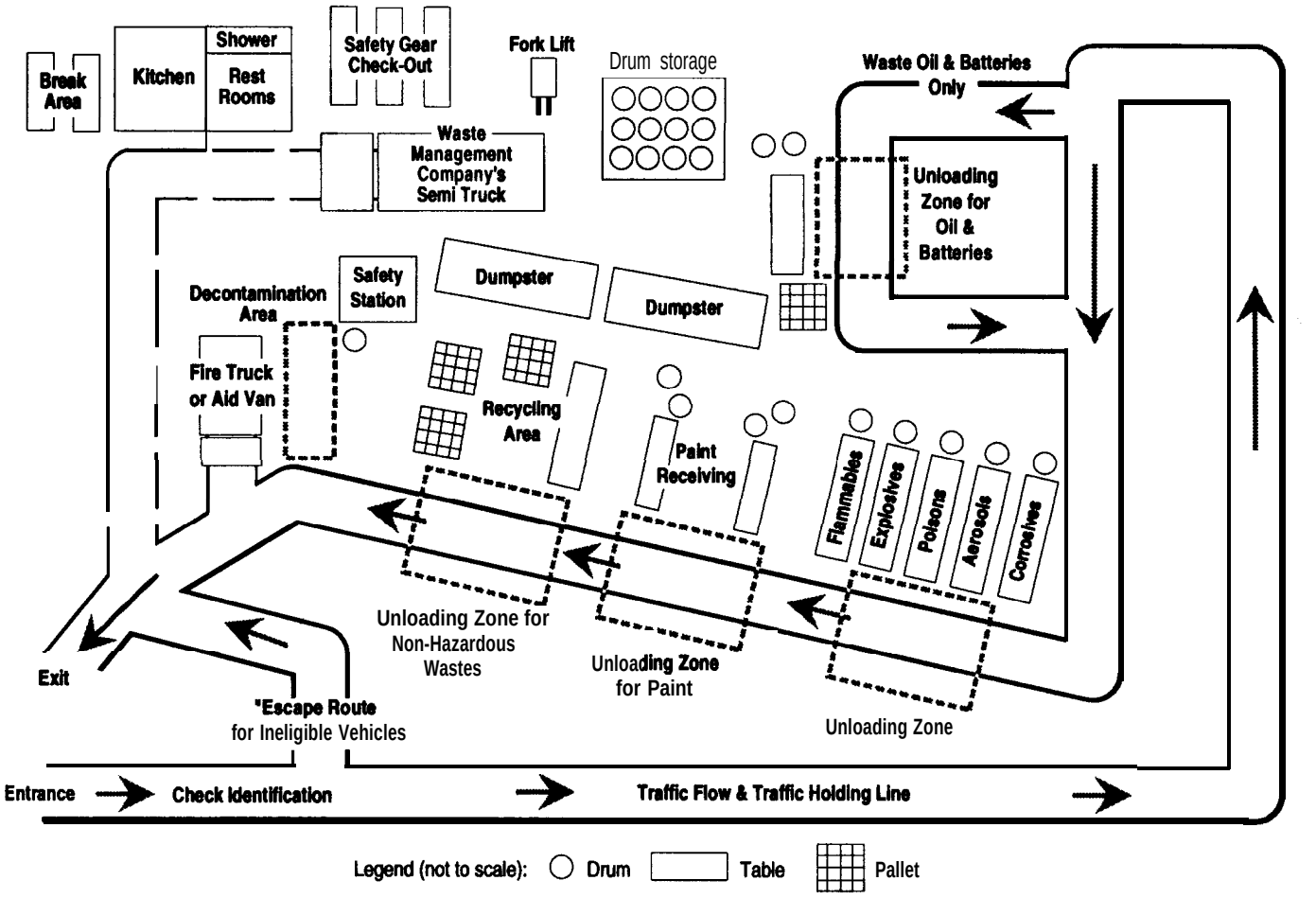
The size of the site is critical to the efficiency of the program; sponsors should plan for traffic overflow. The site should beat least 10,000 square feet.

Figure 1 shows one example of a site plan for a one-day drop-off collection program.

The simple plan shown in Figure 1 might not be adequate for all programs, however. Depending on the design and goals of the program, a more complex layout might be required, such as the layout shown in Figure 2. Described below is a commonly used system for designing the site layout. There are many other ways an effficient collection can be achieved.

Entrance

Collection staff or volunteers should stand at the entrance or check-in station to greet the participants and direct them to the receiving area. Police officers or volunteer personnel should be stationed just outside



More complex site plan for a one-day drop-off HHW collection program.

the entrance to manage traffic flow that cannot be contained on the site.

Several unloading lanes with signs and traffic cones can help control the flow of traffic on and off the site. Separate express lanes for the wastes received in the highest volume (usually paint and used oil) can help speed up service to participants.

Before participants drop off their HHW, they can be asked to document their eligibility to participate in the collection (residency), complete questionnaires, and list the wastes they have brought to the site. (A sample questionnaire is provided in Appendix D.) The staff can offer informational materials, answer questions, and provide information about what to do with excluded wastes. To minimize traffic delays, these tasks can be completed while participants wait to enter the receiving area.

Receiving Area

At the receiving areas, trained personnel (usually the contractor's staff) screen each vehicle for unknown, unacceptable, recyclable, or nonhazardous waste. Participants should not be permitted to remove any wastes from their own cars and should be encouraged to remain in their cars. The staff members unload recyclable materials and take them to the recycling area. The recyclable should be handled and packaged according to any instructions from the recycling firm. They then take the rest of the acceptable wastes to a sorting table. After removing the HHW from the vehicle, the staff members direct the participant to the exit.

Sorting Area

In the sorting area, staff members or contractor personnel sort the wastes into hazard categories and deliver them to the packing area. They place empty containers and nonhazardous waste in dumpsters located in the sorting area. Arrangements can be made for removing and replacing the dumpsters during the day if necessary. A volunteer can flatten boxes for recycling or to reduce the amount of room the boxes take up in the dumpster. Any unknown material needs to be sorted as a hazardous material.

Packing Area

In the packing area, trained personnel (usually contractor staff.) lab-pack the wastes or bulk them into drums. They then label all containers by hazard class and load them onto the appropriate truck(s). Consolidation of wastes (e.g., paint, motor oil, or antifreeze) can be performed in this area.

Temporary Storage Area

Empty drums are kept in the temporary storage area. Fully packed and sealed drums can be placed in the storage area until they are loaded onto a truck. To ensure that this area stays dry and uncontaminated, it should be covered, at least by an awning, and the floor should be covered with chemically resistant plastic.

Break Area

Staff and volunteers should have a break area, separate from the waste-receiving area, where they can eat, drink, rest, and use a bathroom.

Parking Area

A special parking area is recommended to accommodate people who need extra attention, such as those who bring in unidentified wastes or have spilled a container in their vehicle. Parking spaces also can be designated for volunteer and staff vehicles.